

## NEW DISTRIBUTION RECORDS OF NORTH AMERICAN TROX (Coleoptera: Scarabaeidae)

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Since the publication of "A Revision of the Genus *Trox* in North America" (Vaurie, 1955, Bull. Amer. Mus. Nat. Hist.), and "Two New Species of *Trox* from Florida," (Howden and Vaurie, 1957, Amer. Mus. Novit.), I have studied material from additional collections which has added new locality records to the distribution of 21 of the 45 species in North America (from Canada to Nicaragua). The names are listed in the order of the 1955 revision.

### THE *scaber* GROUP

*Trox aequalis* Say. In Mexico this species is not so common as in the United States. It was reported previously (11 specimens) from the states of Coahuila, Chihuahua, and Durango, and has now been taken at a light trap in Monterrey, Nuevo Leon, in May, 1958, by Jean Mathieu.

*Trox striatus* Melsheimer. Illinois is added to the range of this small, shining species (New Jersey, Pennsylvania, Arkansas) with 25 specimens examined from that state.

*Trox laticollis* LeConte. Two new states are added to the known distribution (Massachusetts, New York, Pennsylvania, Iowa, Arkansas) of this unusual species. They are New Jersey (a male examined from Riverton, May, 1931), and Indiana (Tippecanoe Co., April), the latter reported by N. M. Downie in his "Records of Indiana Coleoptera. I" (Proc. Indiana Acad. Sci. for 1956, 66:122).

*Trox atrox* LeConte. A specimen seen from Denison, Iowa (June, 1949, collected by C. and P. Vaurie) adds this state to the range.

### THE *terrestris* GROUP

*Trox spinulosus*. *T. s. spinulosus* Robinson. No specimens of this subspecies had been examined by me from Arkansas although two had been seen from the adjacent states of Louisiana and Oklahoma, and the range of the species is the east central area of the United States. A male and female from the southwestern part of the state (Washington Co.) have now been examined. *T. spinulosus dentibius* Robinson. This subspecies occurs in Nuevo Leon as well as in other states of Mexico, as shown by four specimens from Campo Apodaca, 19 kms. northeast of Monterrey, taken in April and May, 1958, by Jean Mathieu, at a light

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trap. This form occurs also in the southeastern United States.

*Trox frontera* Vaurie. L. J. Bottimer reports (*in litt.*) that he has seen two more males from the type locality (Dimmit Co., Texas), bringing the known number of specimens to eight.

#### THE *tuberculatus* GROUP

*Trox sonora* LeConte. Two extensions of range are reported here for this widespread and abundant species. One is based on a specimen from Alameda, California (from the Illinois Natural History Survey Division collection), and the other on a male examined from Monterrey, Nuevo Leon, Mexico; the latter constitutes the most eastern record in Mexico although the species has been taken in eastern Texas. The only other record west of Arizona is one specimen from southern California at San Diego.

*Trox robinsoni* Vaurie. An additional state record for this species of the central states is Illinois (a female from Algonquin and a male from La Salle examined). Two of the paratypes were taken even farther east and north in Michigan.

*Trox tuberculatus* De Geer. A new record for this species is established by a male examined from Lincoln, Nebraska, in the collection of C. A. Frost. This locality fills in the gap between Iowa and Wyoming in the westward extension of this eastern species.

*Trox floridanus* Howden and Vaurie. A series from Cedar Keys on the west coast of northern Florida (examined in the collection of Robert Woodruff) establishes a fourth locality in Florida for this species which is not known outside of Florida. In the distributional map of *tuberculatus* (Vaurie, *loc. cit.*, p. 55), the dots in the peninsular part of Florida represent *floridanus*, not *tuberculatus*.

*Trox plicatus* Robinson. Of the many Mexican states in which this species occurs, two not previously mentioned are the state of Mexico (five specimens examined from Chapingo, at a light trap, in May, June, July, and September), and Morelos (Cuernavaca, July, 1952, one specimen examined). The species occurs also in the southwestern United states.

*Trox variolatus* Melsheimer. Iowa is added to the other states west of the Mississippi River (Kansas, Oklahoma, Missouri, Louisiana, Texas) in which this eastern form has been recorded (the specimen examined is from Ames).

#### THE *unistriatus* GROUP

*Trox sordidus* LeConte. Recorded previously from nearby Ohio, Indiana, and Iowa, as well as from other states, this species has now been

examined from Illinois (from the Illinois Natural History Survey Division).

*Trox capillaris* Say. Four specimens from Putnam County, Illinois, show that the species occurs in that state. It is most common in the northeastern states.

*Trox unistriatus* Beauvois. Only three specimens of this predominantly northern species had been examined from Florida, Texas, and Louisiana in the south, but I have now seen a specimen from Washington County in southwestern Arkansas.

#### THE *suberosus* GROUP

*Trox tytus* Robinson. This interesting species that inhabits the nests of barn owls was known previously from but five widely separated places (in Pennsylvania, Georgia, Oklahoma, Arizona, and Cuba). It is now known to occur also in western Virginia (a specimen examined from Buena Vista on June 19, 1953, collected by F. W. Stehr, in the collection of Robert Woodruff).

*Trox rubricans* Robinson. A new Mexican record for this uncommon species, which ranges sparingly from southern Texas to Nicaragua, is from the state of Nayarit on the west coast (San Blas, a female collected by R. B. and J. M. Selander in June, 1955). The type is from Sinaloa to the north, but the other specimens recorded from Mexico come from the eastern coast.

*Trox carinatus* Loomis. Because only 12 specimens of this species have been seen, it might be of interest to report two more, although they come from states already included in the range of the species. One specimen is from Hidalgo County, New Mexico, northeast of Rodeo, in July, and one from Douglas, Arizona, in September, in the collection of Bernard Benesh.

*Trox tomentosus* Robinson. Two additional specimens from the type locality, Nayarit, Mexico, have been examined (Jesus Maria in the central western part of the state near northern Jalisco, July, 1955). This brings to seven the total of known specimens, the others being from Sonora, Sinaloa, and Oaxaca.

*Trox monachus* Herbst and *Trox fuliginosus* Robinson. These two species, which are sympatric in Texas only, cannot always be distinguished unless a male is available. A specimen of *monachus* from a fourth locality in eastern Texas comes from Cherokee County (a dissected male taken by R. E. Maxwell in April, 1939). The other species, which occurs in Mexico in Veracruz and Yucatan, and in Guatemala, as well as in Texas, has now been seen from an intervening area in

northeastern Mexico (a specimen examined from Victoria, Tamaulipas, May, 1941, collected by R. and J. Potts). Bottimer (*in litt.*) reports a specimen also from the state of Coahuila.

*Trox scabrosus* Beauvois. This eastern species was reported previously from as far west as Nebraska, Kansas, and Oklahoma, but I have now seen a specimen from Baco County, Colorado, June, 1939.

*Trox tessellatus* LaConte. The state of Morelos, Mexico, is added to the distribution of this species in other states of Mexico (Baja California, Sonora, Sinaloa, Guerrero) as shown by a male taken in June, 1957, in Amacuzac by W. W. Gibson. The species occurs also in the southwestern United States.

*Trox umbonatus* LeConte. A specimen from a second locality in the northeastern Mexican state of Nuevo Leon is one examined from Monterrey, taken in March. The species occurs also in the states of Tamaulipas, Coahuila, and Chihuahua, as well as in the southwestern United States.